



## Review Article

# Intellectual property rights and patents in perspective of Ayurveda

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## Abstract

Ayurveda is getting its due recognition as a rationale system of medicine worldwide despite the fact that medical and scientific fraternity of the globe has very strong opposite opinion regarding safety and efficacy of Ayurvedic medicines. Meanwhile, provisions of Intellectual Property Rights under World Intellectual Property Organization (WIPO) and Patents have attracted many individuals and organizations to explore possibilities of commercial benefits with Ayurvedic traditional knowledge. Although rules are not favoring to grant a patent on prior published knowledge, biopiracy managed grant of Patent on knowledge of Ayurvedic medicinal plants which has been successfully checked with references of data base of Traditional Knowledge Digital Library (TKDL). Current provisions of the Patent law of India are obstructive in nature for getting patent on Ayurvedic medicines. If we have to invite researchers from basic science to ensure quality, safety and efficacy of Ayurvedic medicines, there is an urgent need to amend laws of patent with pragmatic promotional policies. This will encourage more patents on numerous pharmaceutical, nutraceutical and cosmaceutical products based on Ayurveda. As every action of today's world is based on economic criteria so why stakeholders of Ayurveda should be deprived of it. New inventions would drive acceptance of Ayurveda as a global system of medicine.

**Key words:** Ayurvedic pharmaceuticals, cosmaceuticals, IPR, nutraceuticals, product patent, TKDL

## Introduction

Ayurveda is by and large a conceptual science where concepts have been evolved around principles of health, etiopathogenesis of diseases and approaches to treatment, which include not only drug but also therapeutic diets and therapies to correct disturbed balance of the body.<sup>[1]</sup> In this system of medicine, use of plants has been the eternal source of food and medicine since antiquity. Although local herbs and plants are used traditionally in all countries of the world, but India has been the pioneers in this field where its traditional systems of medicine have been flourishing for centuries and millennia in a well-codified form. Ayurveda is based on its own original and unique fundamental principles and it has its authentic literature including material medica. Ayurveda in India has remained in unbroken practice for thousands of years and even today the main stream of

official system of medicine with huge infrastructure.<sup>[2]</sup> In fact, in India, Ayurveda is credited as most authentic traditional knowledge of medicine.

World Intellectual Property Organizations Conventions, 1967 states that 'Intellectuals Property includes the rights relating to literary, artistic and scientific works, performances and performing artists, photographs and broadcasts, inventions in all fields of human endeavor –scientific discoveries, industrial designs, trademarks, service marks and commercial names and designations, protections against unfair competition and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.'<sup>[3]</sup>

Patent is a legal document granted by the government giving an inventor the exclusive right to make, use and sell an invention for a specified period of time. It is also available for significant improvements on previously invented articles. The underlying idea behind granting patents is to encourage innovators to advance the state of technology. According to the UN definition, a patent is a legally enforceable right granted by countries government to its inventor. Patent Law represents one branch of a larger legal field known as intellectual property rights. Patent Law centers on the concept of novelty and nono

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bvious inventions. The invention must be legally useful. The imitators and all independent devisors are prevented from using the invention for duration of patent.<sup>[4]</sup>

The symbiosis of Intellectual Property Rights (IPR), Patent and Traditional Knowledge (TK) has become indispensable for its creators and for the world's intellectual community at large. Evidently, the need for preservation, protection and promotion of TK has become inevitable for self-sustenance, economic prosperity of knowledge holders and competitive business advantage. Obviously, the promotion of TK is now widely recognized and it plays an eminent role in supporting TK-based community's livelihood and cultures. The exponential growth of TK has galvanized new forms of IPR protection, especially for traditional medicine (TM). The traditional healthcare problems, complexities linked to IPR in TK, and community knowledge are posing a gargantuan challenge to sustainable development, intellectual and cultural vitality.<sup>[5]</sup>

In the light of these references, all stakeholders of Ayurveda in general and scholars of Ayurveda (read therapeutics and pharmaceuticals both) in particular must be acquainted with the basics of IPR, patent and its possible proposition in progress of traditional knowledge of Ayurveda with innovative approach.

### Corefacts

(A) Applicability of rules of IPR on traditional Ayurvedic knowledge

What makes knowledge "traditional" is not its antiquity: much TK is not ancient or inert, but is a vital, dynamic part of the contemporary lives of many communities today. It is a form of knowledge which has a traditional link with a certain community: it is knowledge which is developed, sustained and passed on within a traditional community, and is passed between generations, sometimes through specific customary systems of knowledge transmission. A community might see TK as part of their cultural or spiritual identity. So it is the relationship with the community that makes it "traditional".<sup>[6]</sup>

So, Ayurveda is an integral ingredient as an inheritance of different individual communities of Indian culture since primordial times. It has been created by Lord *Brahama* (mythological story) and carried out to planet earth by sagacious scholars – *Rishis* and being practiced prominently till date.<sup>[7]</sup> This is also factual that at present Ayurvedic practice is being accomplished day by day, and evolves as individuals and communities respond to the challenges posed by their social environment and new ailments. Therefore, it is not only desirable to develop a protection policy that documents and preserves TK created in the past, which may be on the brink of disappearance; it is also important to consider how to respect and sustain the development and dissemination of further TK that arises from continuing use of TK systems. These contemporary aspects of development of Ayurveda demand its legal protection to check its (knowledge of Ayurveda) exploitation from commercial houses or individuals with many other fraudulent objectives.

Rules framed for protection of knowledge of various categories under IPR are quite sufficient to check its obnoxious uses either by inventors or swindlers. IPR rules are clearly differentiating the properties and characters of knowledge which may be used for commercial benefits by inventor directly or through

a company. Under these compositions of IPR, Ayurvedic traditional knowledge invites greater attention at present. Previously certain sectors of society and ill-minded individuals tried to vilify this wisdom under rules of IPR ultimately leading to patent but aware public and regulatory authorities checked them successfully in few cases.

After flood of fraudulent claims regarding medicines and procedures of Ayurvedic treatment concern authorities in India may adopt policy for positive protection of Ayurvedic traditional knowledge on under mentioned points of concern.<sup>[6]</sup>

- i. Recognition of value and promotion of respect for traditional knowledge systems
- ii. Responsiveness to the actual needs of holders of TK
- iii. Repression of misappropriation of TK and other unfair and inequitable uses
- iv. Protection of tradition-based creativity and innovation
- v. Support of TK systems and empowerment of TK holders
- vi. Promotion of equitable benefit-sharing from use of TK
- vii. Promotion of the use of TK for a bottom-up approach to development

(B) Procedures for patent and Ayurvedic perspicacity

In the later part of the nineteenth century new inventions in the field of art, process, method or manner of manufacture, machinery, apparatuses and other substances, produced by manufactures were on the increase and the inventors became very much interested that the inventions done by them should not be infringed by anyone else by copying them or by adopting the methods used by them. To save the interests of inventors the then British rulers enacted the Indian Patents and Design Act, 1911. Since then many amendments was adopted as and when it was felt and finally The Patent Bill was introduced in the Parliament 1970.<sup>[8]</sup> A major amendment was introduced in 2005 defining process and product patent in the context of contemporary international rules.

An invention is the creation of intellect and applied to capital and labor, to produce something new and useful. Such creation becomes the exclusive property of the inventor on grant of patent. The Patentee's exclusive proprietary right over the invention is an intellectual property right. The Patent Law recognizes the exclusive right of a patentee to gain commercial advantage out of his/her invention. This is to encourage the inventors to invest their creative faculties, knowing that their inventions would be protected by law and accordingly no one else would be able to copy their inventions for certain period during which the respective inventor would have exclusive rights.<sup>[9]</sup>

Procedures for obtaining a patent consists of the following steps.

- a. Submission of application
- b. Examination of application
- c. Advertisement of acceptance of complete specification
- d. Opposition to grant of patent to the applicant
- e. Hearing of parties
- f. Grant and sealing of patent.

Ayurvedic knowledge is centuries old in this continent and as per rules of Patent, to get a patent it must be new invention, consisting nobility with commercial industrial application. So, in first sight it seems that it is impossible to get a patent on Ayurvedic knowledge which is in 'public domain' and 'prior act' as per provisions of patent act which prohibit grant of patent in these set of conditions.

## (C) Provisions of patent for pharmaceutical products

India's patent act of 1970 granted patents on chemical processes but did not permit patents on drugs. This allowed Indian drug companies to reverse engineer molecules to produce generic versions of patented drugs. Health activists say the amendments would make it easier for companies to acquire patents on new uses of old drugs and on new combinations of old drugs. Under the new legislation, compulsory licensing that allows local companies to produce generic products would become difficult.

The Patent Amendment Act 2005 passed by the Parliament in its budget session of 2005 brings the Indian Patent Act in full conformity with the intellectual property system in all respects. This replaced an ordinance promulgated on December 2004 to meet WTO obligations. Some of the major amendments have been introduced in Sections 2 and 3 which are as follows: section 2 of the Patent Act is the definition clause: According to section 2(j) invention means a new product or process involving an inventive step and capable of industrial applications.

Inventive step means a feature of an invention that involves technical advance as compared to existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in art.

Thus an invention in order to be patentable, should

- i. Involve an inventive step capable of industrial application;
- ii. Which should involve technical advances as compared to the existing knowledge or having economic significance or both; and
- iii. Be not obvious to a person skilled in art.

Section 3 outlines various situations where an invention (properly so called) can yet be not patentable. Section 3(d) of the Patents Act 1970 has been amended under the new Act to prescribe a class of discovery which cannot be subject matter of patent; it reads as follows:

(d) Mere discovery of a new form of known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least employs one new reactant.

Product patents have been extended to fields of technology such as drugs, food and chemicals but granting of patents are subject to restrictions as mentioned above (Section 3(d)). This section prevents frivolous inventions from being patented. The amendments introduced in the Patents Act exhibit the essence of patentability in the pharmaceuticals and chemicals is inventive ingenuity, novelty and existence of industrial application or economic significance of the new product or process. Patents work differently in different industries. However, in the pharmaceutical, chemical and biotechnology industries the patent normally equals the product, and protects the extensive investment in research and clinical testing required before placing it on the market.<sup>[4]</sup>

How far all these measures of Patent Act will be beneficial to Ayurvedic medicines of different categories notified in Drugs

and Cosmetics Act, 1940 to get a patent or to check patent for commercial exploitation is a debatable affair among all stakeholders of Ayurveda eyeing global business with Ayurvedic medicines of different licensing groups.<sup>[10]</sup>

(D) Commercial correlation of patent and Ayurvedic medicines Patent provides an opportunity of prosperity to patentee. Thus people of diverse surroundings are trying to create wealth through Ayurvedic traditional knowledge by claiming numerous patents on subject matters which are in domain of Ayurveda. Since market of Ayurvedic medicines have boomed all across the globe especially in American, European countries, organizations as well as individuals are not leaving any stone unturned to have some patents related to medicinal plants of Ayurveda to exploit multiple million benefits from these patents. With the upsurge in acceptance of traditional medicine among global public there is unprecedented abundances in applications to grant patent on many aspects of medicinal plants detailed in Ayurveda varying from process to product categories.

## (E) The problem of plenty proficiency in Ayurveda

Ayurveda has one million verses in its origin, describing every problem and solution of life, holistically since the dawn of civilization in this continent. And onwards, hundreds of classical texts dealing with different disciplines of medicines were created by visionary scholars of Ayurveda, sharpening, widening and accommodating advancement of knowledge of successive periods. Result of this continuous enlightenment in realm of Ayurveda is anthology of assorted enormous wisdom to serve human of any race, color, caste and creed across the world, transversely. Unfortunately, this immense treasure of Ayurveda is generating a challenging situation for attorney and officials of Patent offices as they do not have assess of this comprehensive knowledge. American and European offices of patent were unable to cross check the claim of new inventions due to several problems such as lack of digitalization, difference in language, unavailability of classical or folk text books of Ayurveda and many more. Taking advantage of these unforeseen conditions some traitors got patent on medical ethics of Ayurveda, on the basis of forged documents.

## (F) Tit-for-tat through traditional knowledge digital library

For any sector to exist and grow, the foundation is knowledge base. There are various phases right from discovery of knowledge to deployment of knowledge. It can be used not only for traditional medicinal sector but any sector in capturing knowledge, integrating it properly, organizing and managing it effectively and finally deploying it and developing applications and tools for the end users to make effective use of their domain knowledge.<sup>[11]</sup> Perceiving need of digitalization of traditional knowledge of India to protect it from patent biopiracy especially in field of medicine a multiparty as well as multicentric project was launched. It is on record that the Council of Scientific and Industrial Research (CSIR) successfully revoked patents filed on turmeric, *Neem* and *Basmati* in USA. This success set the tarmac from which the new initiative called the 'Traditional Knowledge Digital Library (TKDL)' was perceived and followed. The first phase of TKDL on Ayurveda is marked for completion in October, 2010. This is notable that for bringing out a TKDL on Ayurveda, a Memorandum of Understanding was signed on 6 June 2001 between the National Institute of Science Communication (NISCOM, presently NISCAIR), New

Delhi, and the Department of Indian Systems of Medicine and Homeopathy (ISM & H) later renamed as Department of AYUSH (in 2003), Ministry of Health and Family Welfare which is running successfully at present.<sup>[12]</sup>

Further, humble purpose of establishing TKDL is to assimilate the scattered and non-documented literature on TK and bring it into a format which can be easily accessed, understood and retrieved by International Patent Examiners. In the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement of WIPO, the classification system in International Patent Classification (IPC) for the documentation of TK, had only one single subgroup related to medicinal plants. Therefore, a modern classification system was evolved which was in line with IPC. Agencies like Indian National Institute of Science Communication and Information Resources (NISCAIR-CSIR) and Dept. of AYUSH, Govt. of India prepared a classification system especially for Ayurveda, in the first instance, and named it as Traditional Knowledge Resource Classification (TKRC).

This will have significant impact on the system of search and examination while granting patents in the area of TK whereby the possibilities of granting of wrong TK patents will be significantly reduced. TKDL targets Indian Systems of Medicine i.e., Ayurveda, Unani, Siddha, Yoga and Naturopathy available in public domain. The related information was documented from the existing literature available in Sanskrit, Urdu, Arabic, Persian and Tamil languages. This was translated into five international languages (English, German, French, Spanish and Japanese) which could be understood by international patent examiners. TKRC is an innovative structured classification system for the purpose of arrangement, dissemination and retrieval of TK. As per the IPC rules, the information is classified under sections, subclass, subgroups which makes it easy for patent examiners to access.

In fact, TKDL is basically a software and with its classification system converts text in local languages into multiple international languages. This software does not transliterate, but it does a knowledge-based conversion where the abstract is converted into several languages using Unicode, metadata methodology. This software also converts traditional terminology into modern terminology e.g., Turmeric to *Curcuma longa* Linn; *Neem* to *Azadirachta indica* A. Juss; Basmati rice to *Oryza sativa* Linn; *Jwar* to fever; *Kumari* to *Aloe vera* and *Mussorika* to small pox. TKDL includes search interface which provide full text search and retrieval of TK information on IPC and keywords in multiple languages. The search features includes single or multiple word search, Boolean expression search, field search, phrase search etc. Searches are also available on IPC and TKRC codes.<sup>[5]</sup>

TKDL is an effective tool for protection of TK against misuse or misappropriation which raises deep policy questions and practical challenges alike. The changing social environment, and the sense of historical dislocation, that currently affect many communities may actually strengthen resolve to safeguard TK for the benefit of future generations. Just as the technological value of TK is increasingly recognized and its potential realized, the challenge is to ensure that the intellectual and cultural contribution of traditional communities (read Indians) is appropriately recognized. It also provides a potential avenue for developing countries, to benefit from the knowledge economy.<sup>[6]</sup>

Knowledge of Ayurveda, if utilized properly without the bar of patent universally, it may change the economic scenario of country, India. This has been substantiated by The “Report of the Sub Group on Research and Industry” of the Steering Committee on AYUSH for the Eleventh Five –Year Plan (2007-2012), in its proposed export –oriented schemes “Schemes for Development of new Formulations, Technologies, Tools and Practices with Validation of Existing Products and Procedures”, states that one of the measurable outputs for this scheme in the 11<sup>th</sup> Plan would be a rise in exports of products put up for retail sales from the AYUSH sector to Rs 3000 Crore by 2012 from Rs 120 Crore in 2005.<sup>[13]</sup>

## Discussion

The economic consequences for India through its traditional knowledge are not very difficult to assess. As, the main economic benefit would be to act as a quality mark which will play a part in enhancing export markets and revenues. It has also been suggested that geographical indications may be of particular interest to a number of developing countries who might have, or might be able to achieve, a comparative advantage in medicinal and agricultural products and processed foods and beverages. For these countries, seeking and enforcing protection for biopiracy of patent in view of consignments to abroad may have economic gains. In addition, prior to seeking protection abroad, it is necessary both to develop and protect the traditional knowledge in the country of origin. Resources may need to be deployed to ensure that the required quality, reputation or other characteristics of the products covered by the traditional knowledge in specific geographical indications are developed and maintained.<sup>[14]</sup>

Whether this grand acquaintance of Ayurveda with the world population may show any effect on Indian economy in general and last stakeholder of Ayurveda [physicians, producers of medicines (individualized and organized), cultivators of raw material, etc.] of India in particular is an issue of argument of this review paper. Existing laws of patent of India are certainly not made keeping traditional knowledge of Ayurvedic medicine incenter. Therefore, this may be theme of debate at national level that what amendments are needed to protect and promote our traditional knowledge of medicine, globally in the context of commercial comfort to the nation.

### (I) Global elegance of Ayurvedic traditional knowledge and obstacles

In 1978, the World Health Organization (WHO) first recognized the relevance of traditional medicine as a source of primary health care in the Primary Health Care Declaration of Alma Ata. The topic has been addressed since 1976 by the WHO Traditional Medicine Team, including through the development of the WHO Traditional Medicine Strategy. Moreover, during 1998 and 1999 WIPO conducted fact-finding mission in 28 countries in order to identify the IP- related needs and expectations of traditional knowledge holders. Indigenous and local communities, nongovernmental organizations, governmental representatives, academics, researchers and private sector representatives were among the more than 3000 persons consulted on these missions. The results of the missions were published by WIPO in a report entitled “Intellectual Property Needs and Expectations of

Traditional Knowledge Holders: WIPO Report on Fact-finding Missions (1998-1999)” (FFM Report).<sup>[15]</sup> This report established significance of traditional medicines globally with a pragmatic approach. Later, on virtue of its unique advances in field of medicine, Ayurveda is getting acceptance in international arena with positive notes with occasional adverse notes on safety issue of some of its herbo-mineral formulations.<sup>[16]</sup>

These probably doctored additional adverse notes are so because Ayurveda encounters biomedicine where a context of a similar encounter, actually contestation, already exists. The situation of contestation with conventional or orthodox medical profession and pharma industry is with reason that they want a ‘level playing field’ with respect to the (TM/CAM)- and the governments of the US, UK and EU are only responding to this perfectly legitimate claim. The conventional medical professionals argue that they have to work harder to acquire degrees and licensing, before they can practice and are constantly under regulation and accountable for their practice. None of these apply to ‘traditional’ practitioners and so they have an upper hand.<sup>[17]</sup> However, positive notes are more encouraging as according to information supplied by the National Institute of Health (NIH) to the California College of Ayurveda that provides the Natural Healers Directory, Life style interventions are a major Ayurvedic preventive and therapeutic approach. There are 10 Ayurvedic clinics in North America, including one hospital-based clinic that served 25,000 patients since 1985.<sup>[18]</sup>

In this favorable as well as controversial position regarding Ayurvedic medicines, how one should move in international market is million dollar question being faced by Ayurvedic personnel on ground facing reality daily. What may be the answer to these critics? Where is way out? Either Ayurvedic industry move with new invented patent products from Ayurvedic wisdom or should stick to time tested safe and effective classical Ayurvedic medicines. This we have to find out with rationality to contemporary causes.

#### (II) Ayurvedic pharmaceuticals – beyond TKDL

Pharmaceuticals is a branch of pharmaceutical sciences dealing with the fabrication and presentation of drugs in a form ready for use by patients.<sup>[19]</sup> If India has to become a global player in pharmaceutical industry it is absolutely essential to substantially increase its inputs on the research and development front. As the resources at the disposal of even the big Indian Pharmaceutical companies are limited, there is need to pool all resources and creates a few joint ventures for R and D activities to meet the immediate and long term requirements.<sup>[20]</sup>

Analysis of Ayurvedic Pharmaceutical industry on parameters of presentation of product and research data generated for their most of products in terms of present day regulatory requirements are not meeting international standards. High degree of attention and real fact delivery work is urgently desired. Since last 10 years, manufacturers of Ayurvedic medicine are trying hard to cope up the situation. There is need of supportive attitude from government (Ministry of Health and Family Welfare, Ministry of Commerce, etc.), core research organization (Council of Scientific and Industrial Research, Indian Council of Medical Research, Central Council for Research in Ayurvedic Sciences, etc.), academia (universities and national institutes) and from common member of public to Ayurvedic pharma industry to grow properly with standards.

We are having high appreciative view for the project of TKDL and its considerable responsibility in prevention of bio piracy to check patents on vilified claims. But at the same moment, we are maintaining our opinion about role of TKDL data base in promotion of Ayurvedic medicines which are not momentous. As the disclosure of a plant in the TKDL database does not, without more, provide a patent-defeating effect to bar patenting of the same plant because the TKDL database does not provide an enabling disclosure of the plant. Thus, merely reading the TKDL database entry does not provide a teaching of how one would reproduce or otherwise obtain the plant or accurate measures for production of medicine.<sup>[21]</sup>

Therefore, stakeholders of Ayurveda should look into this complexity and search answers of question how we can promote patenting of Ayurveda medicines to share economy of the globe. We should not be satisfied with the notion “we check the patent” due to TKDL. Why we are not thinking in direction to have patent on basis of Ayurvedic traditional knowledge in a modified form which must ensure patentable medicine and to place in international commerce with evidence based claims of its quality, safety and efficacy. Some organization and individuals are full of activities in the same trend. Still much more is waiting to be done.

#### (III) Plausible patentability of nutritional and cosmaceutical products of Ayurveda

Ayurveda is a science of medicine, but its fundamentals are not based only on application of pharmaceutical product i.e., drug in meaning of definition of drug of WHO or Food and Drug administration departments of a number of countries. Ayurveda cures diseases on basis of diet and nutrition too. Full philosophy of “*Pathya Kalpana*”- dietary regimen is a magnificent remedy for few ailments and to support patients in cure of other diseases.<sup>[22]</sup> Cosmaceutical products are also have place in bunches of buckets of Ayurveda.<sup>[23]</sup>

Authors are of opinion that there is mammoth potency in the field of nutraceuticals and cosmaceutical products of Ayurveda which may lead to grant of patent on this account and serve masses for good health and in continuance of beauty respectively. Recently, the Department of AYUSH has notified new category of Ayurvedic products under the title of Ayurvedic *Balya/Poshak* (Ayurvedic nutritional products) and Ayurvedic *Soundarya Prasadhak* (Ayurvedic cosmaceuticals) for license and export purpose which may explore new opportunities to Ayurveda worldwide.<sup>[24]</sup>

#### (IV) Accountability of academia of Ayurveda in attentiveness to patent

University is an unique Institution engaged in exploring, generating conserving and transmitting the knowledge. The teachers of University are primarily the knowledge workers engaged in making use of their faculty of reasoning, knowing and thinking which results in the creation of intellectual resources in the form of concept, theories, techniques for their respective user groups in the society. Besides possessing the inquisitive and innovative qualities, the teachers of university need to expose to and interact with their user groups which in turn facilitates the validation of concepts, theories, etc., taught in class rooms, promotes a new relook at these existing concepts, theories, etc., which may result into their reformulations.<sup>[25]</sup> This recognized views of University Grant

Commission for teachers of University and colleges are very much appropriate to Ayurvedic faculty too. In real sense, greater responsibilities are on part of academia cum researchers to perceive new ideas of innovation for patent and preservation of IPR and ultimately protection of its abuses.

(V) Immaculate achievements in augmentation of Ayurvedic acumen

India joins hands with the US and UK to help prevent misappropriation of its traditional knowledge at the United States Patent and Trademark office (USPTO) and United Kingdom Trademark and Patent Office (UKPTO) with the signing of the TKDL Access Agreement with USPTO in November 2009. TKDL Access Agreement has inbuilt safeguards on nondisclosure to protect India's interest against any possible misuse. Under the agreement, the patent examiners at International Patent Offices can utilize the TKDL for patent search and examinations purposes only and cannot reveal the content to third party unless it is necessary for citation purposes. Earlier, in February 2009, a similar TKDL Access Agreement was signed by India with the European Patent Office (EPO), making TKDL database available to their Patent Examiners (EPO having 34 member states) for establishing 'Prior art', in case of patent application based on Indian system of medicine.

Significant impact has already been realized at EPO during the last 1 year. Beginning July 2009, TKDL team has identified 36 patent applications at EPO which concerns Indian system of medicines and third party TKDL evidences have been filed at EPO. In two such cases EPO has already set aside its earlier intention to grant patents after it received TKDL evidence. In other eleven cases, applicants themselves decided to withdraw their 4-5-year old application on being confronted with TKDL evidence. It is expected that in balance 23 cases, either EPO would reject these applications or applicants themselves would withdraw their wrong claims/patent applications unless they are able to establish the novelty of their claims/applications.<sup>[26]</sup>

Authors congratulate complete TKDL team for these achievements and we are equally hopeful for some more good news in this regard. New schemes of department of AYUSH for propagation, acceptance of Ayurveda at international level and parameters being adopted for maintenance of standards in Ayurvedic education, mandatory provisions for quality control, safety and efficacy of Ayurvedic formulations will show affirmative results in due course of time.

## Conclusions

India has a long history and tradition as well as rich heritage of using Ayurvedic medicines for health care and beauty in improving the quality of life. India is also fortunate, perhaps, to have the richest reservoir of traditional herbal medicinal plants and prescriptions. Task force report of Planning Commission, 2000 emphasized that, "The present era is witnessing a fascinating rejuvenation in the traditional system of medicine".<sup>[27]</sup>

Authors conclude discussions on this title by noting that varieties of medicinal plant products developed using modern plant breeding techniques cannot be patented as such as per

the Indian patent law. But the process of developing such varieties can be protected through patents. Similarly, process of extraction of active ingredients, product developments by using medicinal plants of Ayurveda and usages of these with new purposes are patentable subject matter in the national law if they meet the standards of novelty, inventive steps and industrial applicability.

Finally, authors humbly submit before every stakeholder of Ayurveda that we are now in the process of learning the new world order of IPR and have to tight our nuts and bolts to develop efficient safeguarding strategies by developing capacity building of the people through networking with various groups who own the intellectual resource in their interest in particular and nation as a whole. This should lead to strengthened linkages between the needs and interests of world communities, and the core public policy principles of the intellectual property system. India should come in international market with blend of classical and patent Ayurvedic medicines.

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## हिन्दी सारांश

### बौद्धिक सम्पदा अधिकार एवं पेटेण्ट – आयुर्वेद के परिपेक्ष्य में

आनन्द चौधरी, नीतु सिंह

वर्तमान में बौद्धिक सम्पदा अधिकार के अन्तर्गत 'आयुर्वेदीय ज्ञान' के आधार पर की गयी खोज का 'पेटेण्ट' लेना अत्यन्त ही दुरुह कार्य है। वैश्विक विकास में अर्थशास्त्र की अत्यन्त ही महत्वपूर्ण भूमिका है। अतः भारत सरकार की अन्यान्य कार्यदायी संस्थाओं से यह अपेक्षा की जाती है कि वे अपने अधिनियमों में आयुर्वेदोन्मुखी परिवर्तन लाने की प्रक्रिया प्रारम्भ करें, जिससे कि वैज्ञानिकों के साथ-साथ आयुर्वेदज्ञ भी आशान्वित हों और नवीन शोध के लिए प्रेरित हों।

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